

## HIGH SPEED LOW POWER 4-2 COMPRESSOR

### Abstract of the Disclosure

5 A high speed low powered 4-2 compressor according to the present invention performs an XOR/XNOR operation of input data by using a single input type NAND/NOR logic circuit and a dual input type NAND/NOR logic circuit. Thus, delays to generate complementary signals are avoided. In addition, the 4-2 compressor uses a single railed multiplexer instead of a dual  
10 railed multiplexer, so that gate drive nodes and internal load capacitance are reduced. As a result, circuit area and power consumption of the 4-2 compressor are reduced.